agents. No new matter is introduced by this amendment. Support for the amendment may be found throughout the application and, in particular, at page 10, lines 4 and 5.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-5, 7-11, 16-21 and 23-25 stand rejected under 35 U.S.C. §102(b) as being anticipated by International Publication No. WO 99/53319 ("Halverson"). Claims 2, 16-21, 24 and 25 have been canceled. Of the remaining claims, only claim 1 is independent. Applicants respectfully traverse the rejection.

The Office Action states that Halverson teaches a method of transferring molecules and preparing molecules positioned within a matrix to a laminate. Applicants disagree with the characterization of Halverson set forth in the Office Action. Halverson discloses high-density miniaturized arrays and methods of manufacturing high-density miniaturized arrays. The methods of making the arrays include affixing one or more reactants directly to the array substrate by spotting, as exemplified in Example 4 using a capillary tube and in Example 5 using an aluminum post.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP § 2131. Applicants submit that Halverson does not anticipate claim 1 as amended above because Halverson does not describe each and every element of the claim.

Claim 1 recites, in part:

> A method of transferring molecules positioned within a matrix to a laminate comprising:...
> (b) contacting the matrix with a laminate;
> (c) transferring molecules from the matrix to the laminate;
> (d) removing the matrix from the laminate;...

Specifically, Applicants' submit that Halverson fails to describe 1) contacting the matrix with a laminate, 2) transferring molecules from a matrix to a laminate, or 3) removing a matrix from a laminate.

Claim 1 recites a method of transferring molecules from within a matrix to a laminate using a blotting technique. The blotting technique includes contacting a

matrix (e.g., agarose or polyacrylamide, see p. 5, lines 15-29) with a laminate so that one or more molecules positioned within the matrix can be transferred to the laminate. The matrix is characterized as suitable for separating molecules.

In contrast, Halverson describes affixing reactant molecules by spotting reactant molecules onto the substrate to form one or more discrete binding sites. Reactant molecules are spotted onto the substrate from, for example, the end of a capillary (p. 23, lines 22-24) or an aluminum post (p. 24, lines 27-30). Contrary to the characterization of Halverson in the Office Action, Halverson does not teach or suggest the transfer of reactant molecules to a substrate from a matrix or any other medium suitable for separating molecules.

Because Halverson does not describe each and every element of the claim, Halverson cannot anticipate claim 1. Because each of claims 3-5, 7-11, and 23 depends from claim 1, Halverson does not describe each and every element of, and therefore cannot anticipate, any of claims 3-5, 7-11, and 23. Reconsideration and withdrawal of the rejections of claims 1, 3-5, 7-11, and 23 under 35 U.S.C. §102(b) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 6 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over International Publication No. WO 99/53319 ("Halverson"), as applied to claims 1-5, 7-11, 16-21 and 23-25, and further in view of U.S. Patent No. 4,589,965 ("Kreisher"). Claim 22 has been canceled.

The Office Action characterizes Kreisher as teaching the use of electroblotting techniques for transferring molecules from a gelatin matrix to a blot membrane. Therefore, the Office Action asserts, it would have been obvious for one of ordinary skill in the art to utilize the method of Kreisher to transfer molecules to the film laminates of Halverson.

Applicants respectfully traverse the rejection. Applicants submit that the combination of Halverson and Kreisher fails to establish a *prima facie* case of obviousness. Accordingly, the rejection of claim 6 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

MPEP § 706.02(j) states that, in order to establish a *prima facie* case of obviousness, three basic criteria must be met:

(1) there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference;

(2) there must be a reasonable expectation of success; and

(3) the prior art reference must teach or suggest all the claim limitations. Moreover, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and must not be based on Applicants' disclosure.

Specifically, Applicants assert that the combination of Halverson and Kreisher fail to provide motivation for combining the references as suggested in the Office Action and also fail to provide a reasonable expectation of success.

One of ordinary skill in the art at the time the invention was made would have had no motivation to combine Halverson and Kreisher as suggested in the Office Action. Kreisher teaches a method of electroblotting molecules from a gel to a blot membrane. Exemplary blot membranes include papers, nylon, nitrocellulose, DBM paper, DPT paper, and the like (column 4, lines 7-10). These are all conventional blot membranes that lack any sort of coating that includes linking agents. In contrast, Halverson teaches a substrate for an array that includes a polymeric substrate and a coating that includes linking agents at least partially adhered to the substrate (page 3, lines 7 and 8). Halverson teaches affixing reactant molecules to the substrate by spotting, such as, for example, from a capillary or an aluminum post. The coating on the substrate described in Halverson provides the substrate with unique chemical character that is distinct from conventional, uncoated blot membranes (page 10, line 10 through page 14, line 9).

In order to establish a *prima facie* case of obviousness, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant. *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citing *In re Dance*, 48 USPQ2d 1635,1637 (Fed. Cir. 1998)). Further, "particular findings must be made as to the reason the skilled artisan, with

no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *Id.* (quoting *In re Kotzab*, 55 USPQ2d (Fed. Cir. 2000)).

Absent Applicants' disclosure, there is no teaching or suggestion that a substrate coated in the manner of the Halverson substrate could be used in an electroblot (or, indeed, any type of blotting) transfer of molecules from a gel or any other type of matrix. Also, absent Applicants' disclosure, there is no teaching or suggestion that reactant molecules can be transferred to the substrate of Halverson by any passive or active blotting method, including electroblotting. The cited references fail to provide the requisite motivation, teaching or suggestion to make the specific combination made by Applicants. Thus, the cited references fail to establish a *prima facie* case of obviousness.

Additionally, the cited references fail to provide a reasonable expectation of success should one of ordinary skill in the art have combined the substrate of Halverson to perform the method of Kreisher. As described above, the substrate of Halverson includes a coating that includes linking agents that provides the substrate described in Halverson with unique chemical character that is distinct from conventional, uncoated blot membranes. One of skill in the art at the time the invention was made would not have known whether the coating on the Halverson substrate would have interfered with electrophoretic transfer of molecules from the gel to the substrate. Thus, until actually trying the substrate of Halverson in combination with the method of Kreisher, one of ordinary skill in the art would not have had a reasonable expectation that the molecules would transfer successfully to the substrate by electroblotting or, indeed, any blotting method. Consequently, one of skill in the art could not have had a reasonable expectation that the substrate of Halverson could be used successfully in the method of Kreisher. Again, the cited references therefore fail to establish a *prima facie* case of obviousness.

In light of the arguments set forth above, Applicants submit that the combination of Halverson and Kreisher failed to establish a *prima facie* case of obviousness with regard to claim 6. Withdrawal of the rejection is kindly requested.

In light of the amendments and remarks set forth above, Applicants respectfully submit that independent claim 1 is in condition for allowance. Claims 3-11, and 23 all depend from claim 1 and are allowable for at least the reasons set forth regarding the allowability of claim 1. Accordingly, Applicants submit that each of claims 1, 3-11, and 23 are in condition for allowance for at least the reasons stated above.

NEW CLAIM

Claim 26 has been added. Claim 26 depends from claim 1 and recites that the method of transferring molecules from a matrix to a laminate includes the formation of covalent bonds between the transferred molecules and linking agents in the hydrogel coating of the laminate. Because claim 26 depends from claim 1, Applicants assert that claim 26 is allowable for at least all of the reasons set forth above regarding the allowability of claim 1.

CONCLUSION

In view of the amendments and remarks provided above, Applicants submit that all claims under consideration are in condition for allowance. Reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

A method for transferring molecules from a matrix to a laminate that includes a shrinkable polymeric film and a surface coating is disclosed. The method includes (a) providing a laminate that includes i) a shrinkable polymeric substrate and ii) a hydrogel that includes linking agents disposed on at least a portion of the substrate; (b) contacting the matrix with the laminate; (c) transferring molecules from the matrix to the laminate; (d) removing the matrix from the laminate; and (e) shrinking the laminate.

1. (Amended) A method of transferring molecules positioned within a matrix to a laminate comprising:

[contacting the matrix with] (a) providing a laminate comprising

i) a shrinkable polymeric substrate having a projected surface area and a topographical surface area [comprising a shrinkable polymeric film], and

ii) a hydrogel disposed on at least a portion of the substrate, the hydrogel comprising linking agents;

(b) contacting the matrix with the laminate;

(c) transferring [to transfer one or more] molecules from the matrix to the laminate;

(d) removing the matrix from the laminate; and

(e) shrinking the laminate so that the topographical surface area is greater than the projected surface area.

3. (Amended) The method of claim [2] 1 wherein the linking agents comprise azlactone copolymers.

23. (Amended) The method of claim 1[6] wherein the [matrix contains] molecules comprise polynucleotides, polypeptides, polysaccharides, or combinations thereof.